

IN THE DRAWINGS

Applicants propose to insert the caption "PRIOR ART" into Figs. 1-3 of the drawings in accordance with the accompanying ANNOTATED SHEET SHOWING CHANGES.

Also enclosed herewith is a REPLACEMENT SHEET in which the above changes have been incorporated.

### REMARKS

Enclosed herewith is a Substitute Specification in which the specification as filed has been amended in various places to correct typographical and grammatical errors, and to also add section headings. In addition, the specification as filed has been amended to cite U.S. patent application publications corresponding to the cited European patent applications. Enclosed herewith is form PTO/SB/08A listing these U.S. patent application publications.

In support of the above, enclosed herewith is a copy of the specification as filed marked up with the above changes.

The undersigned attorney asserts that no new matter has been incorporated into the Substitute Specification.

The claims have been amended to more clearly define the invention as disclosed in the written description. In particular, claim 9 has been made a proper independent claim. In addition, the claims have been amended for clarity.

The Examiner has rejected claim 1 under 35 U.S.C. 112, paragraph 2, in that the term "possibly" raises doubt if the code words are in fact mutilated.

Applicants submit that this is the essence of the invention. In particular, the method (and apparatus) of the subject invention does not generate mutilated code words. Rather, mutilated code words may arise in the ordinary processing of code words. In particular, as described in the Substitute Specification on page 9,

paragraph [0030], "In a first step, an amount of data  $r$  are read by a reading unit 11 and forwarded to an encoding apparatus 12. During its way from the encoder to the decoder, errors might be introduced into code words, e.g., by scratches on an optical record carrier or by transmission errors, so that the read code words  $r$  are possibly mutilated." When decoding these code words, it is not known in advance whether or not the particular code word is mutilated. However, using the decoding method of the subject invention, these possibly mutilated code words are still able to be decoded.

Applicants believe that the above changes and explanation answer the Examiner's 35 U.S.C. 112, paragraph 2, rejection of claim 1, and respectfully request withdrawal thereof.

The Examiner has rejected claims 1-8 and 10-12 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,246,698 to Kumar in view of U.S. Patent 6,289,000 to Yonge, III.

Applicants acknowledge that the Examiner has found claim 9 allowable over the prior art of record, and in view of the above changes, Applicants believe that claim 9 should now be allowed.

The Kumar patent discloses an in-band on-channel broadcasting method and system in which a method of decoding possibly mutilated code words is arguably disclosed.

The Yonge, III patent discloses a frame control encoder/decoder for robust OFDM frame transmissions which arguably

uses a generator matrix to obtain the information word embedded in decoded code words.

Applicants submit that while Kumar arguably discloses a method of decoding possibly mutilated code words, this method is not hardly the method claimed in claim 1, nor the apparatus claimed in claim 11. In particular, the subject invention, as claimed in claim 1 includes "decoding differences (D) of a number (L-1) of pairs of possibly mutilated code words ( $r_i, r_{i+1}$ ) to obtain estimates (u, v) for the differences of the corresponding pairs of code words ( $c_i, c_{i+1}$ )". While Kumar discloses forming "differences", these differences are in bit positions between each of the re-encoded estimates and the corresponding received estimate, as opposed to "differences of a number of pairs of possibly mutilated code words". Further, there is no disclosure in Kumar of decoding the differences "to obtain estimates for the differences of the corresponding pairs of codewords" as specifically claimed in claim 1.

Further, the invention, as claimed in claim 1, includes "combining said estimates (u, v) to obtain a number (L) of at least two corrupted versions ( $w_j$ ) of a particular code word (c)". While Kumar discloses "estimates", these estimates are not formed by decoding differences of a number of pairs of possibly mutilated code words, and further, these estimates are not combined "to

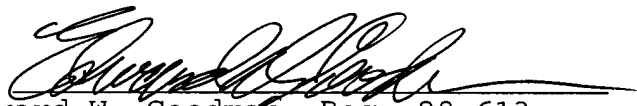
obtain a number of at least two corrupted versions of a particular code word, as specifically claimed in claim 1.

While Yonge, III discloses the use of a generator matrix, Applicants submit that Yonge, III does not supply that which is missing from Kumar.

In view of the above, Applicants believe that the subject invention, as claimed, is not rendered obvious by the prior art, either individually or collectively, and as such, is patentable thereover.

Applicants believe that this application, containing claims 1-12, is now in condition for allowance and such action is respectfully requested.

Respectfully submitted,

by   
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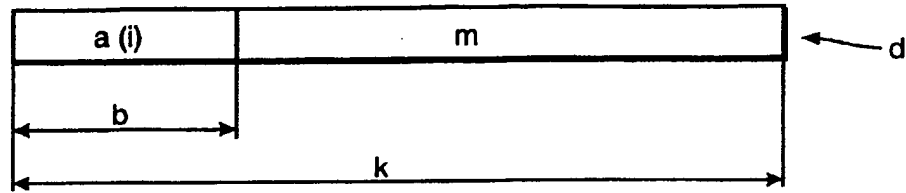


FIG.1 PRIOR ART

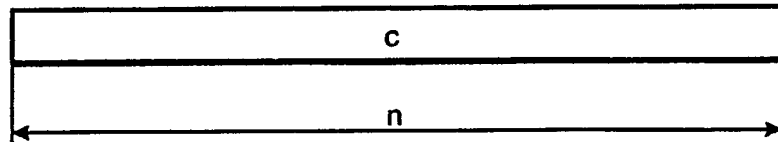


FIG.2 PRIOR ART

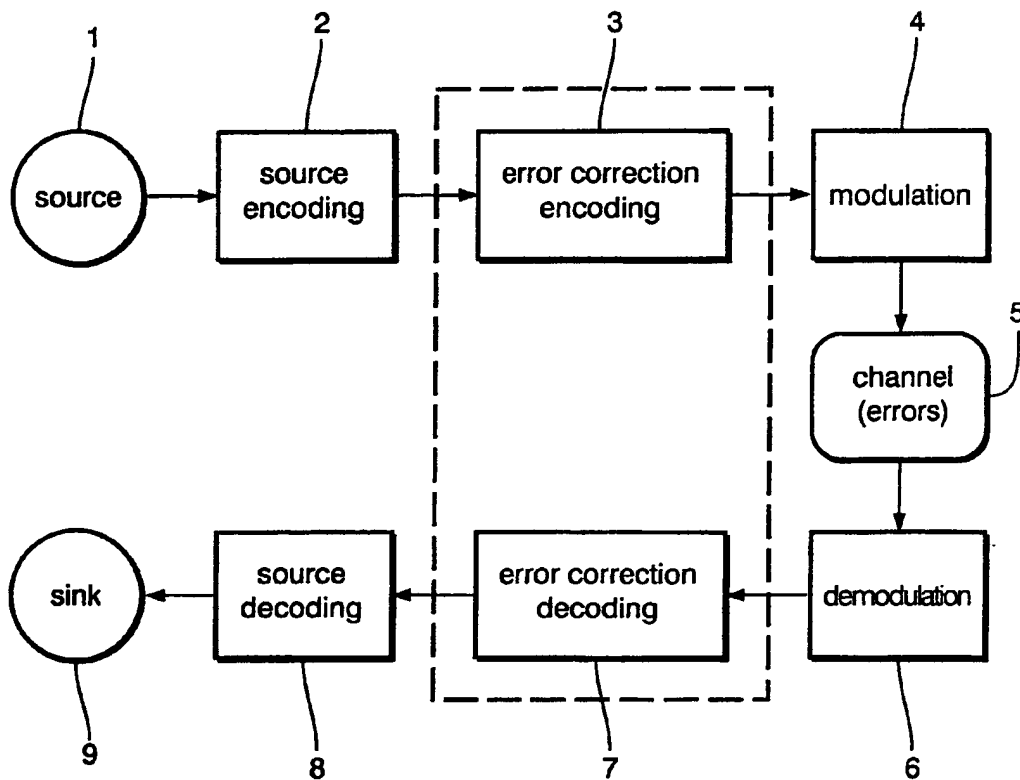


FIG.3 PRIOR ART